May 16, 2019

Via ECFS

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th St., SW, Room TW-A325
Washington, DC 20554

Re: Ex Parte Communication
In the Matter of Updating the Intercarrier Compensation Regime to Eliminate Access Arbitrage, WC Docket No. 18-155

Dear Ms. Dortch:

On May 14, 2019, Charles McKee and I of Sprint met with the following Commission staff members to discuss access arbitrage: Allison Baker, John Hunter, Al Lewis, Gil Strobel, Susan Bahr, Lynne Engledow, Lisa Hone, Erik Raven-Hansen, and Irinia Asoskov of the Wireline Competition Bureau; and Richard Kwiatkowski, Shane Taylor, Eric Burger, Eric Ralph, and Octavian Carare of the Office of Economics and Analysis. Jim Burt, Pete Sywenki, Tom Chillson, and Brian VonFeldt of Sprint joined by telephone.

Sprint highlighted its support for the Commission's efforts to eliminate access arbitrage. The outdated access charge system continues to reward inefficient network design, create fraudulent calling schemes, and undermine important Commission priorities and goals. Sprint outlined its experience with access arbitrage and urged the Commission to take necessary, long overdue measures to end access arbitrage and to promote more broadly efficient network arrangements for the exchange of voice calls. These measures will expeditiously advance several of the Commission's important public interest priorities.

I. Introduction

Eliminating access arbitrage and the vestiges of the antiquated access charge system will advance several key Commission goals and produce critical public interest benefits:

a. Increase Broadband Infrastructure Investment – Eliminating the costs associated with access billing and verification, billing disputes, fraud detection and mitigation, and inefficient network connections will redirect hundreds of millions of dollars to broadband infrastructure.

b. Accelerate the IP Transition – The ability of LECs to impose access tariffs encourages them to maintain TDM rather than deploy IP networks for interconnection and the exchange of voice traffic. By ending access charges, all LECs will have a strong incentive to establish efficient, cost-minimizing,

reciprocal IP interconnection and traffic exchange network arrangements.[1]

c. Mitigate Robocalling – The maximum effectiveness of STIR/SHAKEN requires end-to-end IP in the carriage of voice calls. The current system discourages LECs from replacing TDM with all IP networks and interconnecting and exchanging voice traffic with other carriers in IP. This, therefore, will reduce the efficacy of STIR/SHAKEN.

d. Promote Intermodal Competition – Removing the outdated access charge rules will remove the grossly disparate treatment of CMRS providers that the Commission recognized 18 years ago, in 2001.[2]

e. Remove Implicit Subsidies – Eliminating the monopoly era access charge system will advance the deregulatory, pro-competition policy goals of the Act and the Commission.[3] Moreover, it will deliver on the directives of Congress in Section 254(e) that subsidies be targeted and explicit, and not embedded in market

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[1] *See Connect America Fund et al*., WC Docket No. 10-90 et al., Report and Order and Further Notice of Proposed Rulemaking, para. 684 (2011) (*USF/ICC Transformation Order*) ("The existing intercarrier compensation system—built on geographic and per-minute charges and implicit subsidies—is fundamentally in tension with and a deterrent to deployment of all IP networks.")

[2] *See Petitions of Sprint PCS and AT&T Corp. for Declaratory Ruling Regarding CMRS Access Charges*, WT Docket No. 01-316, Declaratory Ruling, para. 20 (2002) ("Our goal in the Intercarrier Compensation proceeding is to move toward a unified compensation regime that eliminates the opportunity for arbitrage due to different regulatory treatment of different types of traffic. At that time we will address CMRS carriers' requests to be placed on equal footing with wireline carriers, whether through bill-and-keep or some other compensation mechanism."); *USF/ICC Transformation Order* para. 14 ("Eliminating implicit subsidies also helps level the competitive playing field by allowing consumers to more accurately compare service offerings from telephone companies, cable companies, and wireless providers."); *id.* para. 9 ("The system creates competitive distortions because traditional phone companies receive implicit subsidies from competitors for voice service, while wireless and other companies largely compete without the benefit of such subsidies. Most concerning, the current ICC system is unfair for consumers, with hundreds of millions of Americans paying more on their wireless and long distance bills than they should in the form of hidden, inefficient charges.")

[3] *Id.* para 857 ("The excess of the payments over the associated costs constitutes an implicit annual subsidy of local phone networks. …This distorts competition, placing actual and potential competitors that do not receive these same subsidies at a market disadvantage, and denying customers the benefits of competitive entry."); *id.* para. 738 ("A bill-and-keep methodology will ensure that consumers pay only for services that they choose and receive, eliminating the existing opaque implicit subsidy system under which consumers pay to support other carriers' network costs. This subsidy system shields subsidy recipients and their customers from price signals associated with network deployment choices.").

distorting rates.[4]

f. Improve Rural Call Completion – High volume traffic schemes are employing autodialing to generate calls to access stimulator rural telephone numbers. Eliminating access charges will remove the incentives underlying robo-pumping, which will allow more real traffic to complete and thereby improve rural call completion.

The record in this proceeding and in the larger intercarrier compensation proceeding[5] is sufficient for the Commission to finally remove the remaining elements of the access charge system and complete the Commission's transition to full bill-and-keep in which carriers recover the network costs of voice calls from their own customers rather than shifting those costs to other carrier's customers.

Elimination of access charges is the only sure way to achieve the FCC's goal of eliminating access arbitrage.[6] Sprint urges the Commission to take the following actions:

1) Sprint supports the immediate adoption of "prong 1" of the Commission's proposal, so long as the access stimulators do not shift costs back to IXCs or wireless carriers through alternative call routing. Specifically, access stimulators should be responsible for ALL access elements and functions for calls delivered to them – all ports, tandem switching, and transport.

2) Mandatory one-year phase out of remaining access rate elements for price-cap ILECs and CLECs. This provides ample time for these LECs to make reciprocal, competitively neutral IP-interconnect and traffic exchange arrangements for voice calls at the same locations where data traffic is exchanged or another mutually agreeable location.

3) Mandatory two-year phase out of remaining access rate elements for all other ILECs. Rural ILECs may petition the FCC for universal service support to recover the incremental costs of implementing IP interconnection.

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[4] *Id.* para. 747 (""In this respect, bill-and-keep helps fulfill the direction from Congress in the 1996 Act that the Commission should make support explicit rather than implicit.").

[5] CC Docket 01-92.

[6] *See* Letter from Matt Nodine to Marlene Dortch, WC Docket No. 18-155, (April 9, 2019).

II. Past Commission Action Has Not Stopped Access Stimulation

The Commission has taken several measures intended to address intercarrier compensation arbitrage. The imposition of a $0.0007 rate on dial-up ISP traffic was adopted to address the CLECs practice of actually paying ISPs to use their services.[7] The *Farmers and Merchants Mutual Telephone Company Order* in 2009 addressed some of the significant abuses of the access charge rules.[8] Subsequently, in the *ICC/USF Transformation Order* in 2011, the FCC concluded that the access charge system must be eliminated and began a transition to bill-and-keep. The Commission took action in 2015 that made it more difficult for LECs to launder originating 8YY traffic.[9] While these were all positive measures, in order to finally bring an end to access arbitrage the Commission should now remove the remaining financial incentives underlying the access charge system that access stimulators exploit purely for their own gain at the expense of others.

So long as a LEC can unilaterally impose usage charges on the co-carriers of voice calls, there will be incentives for that carrier to increase traffic volumes and to charge as much as allowed. It does not matter whether those charges are end office switching or tandem switching or interoffice transport, dedicated or common, originating or terminating. Arbitragers will always try to find a way to exploit the rules until the underlying opportunity is removed from the system. IP technology makes the marginal cost of voice traffic close to zero.[10] The Commission should act accordingly to ensure that antiquated rules do not continue to perpetuate arbitrage stimulation schemes and inefficient network design that would not exist absent Commission rules creating incentives to do so. Additionally, the ability of access stimulators to shift traffic instantaneously harms networks and other customers due to network, cell site, and/or trunk congestion for which interexchange and wireless carriers cannot plan. Even if uncharacteristically high traffic volumes are accommodated, access stimulators can shift traffic away at a moment's notice, leaving the investment required to meet demand caused by access stimulators stranded.

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[7] *See Intercarrier Compensation for ISP-Bound Traffic*, CC Docket Nos. 96-98, 99-68, Order on Remand and Report and Order (2001).

[8] *See In the Matter of Qwest Communications Corp. v. Farmers and Merchants Mutual Telephone Company*, EB-07-MD-001, Second Order on Reconsideration (Nov. 24, 2009).

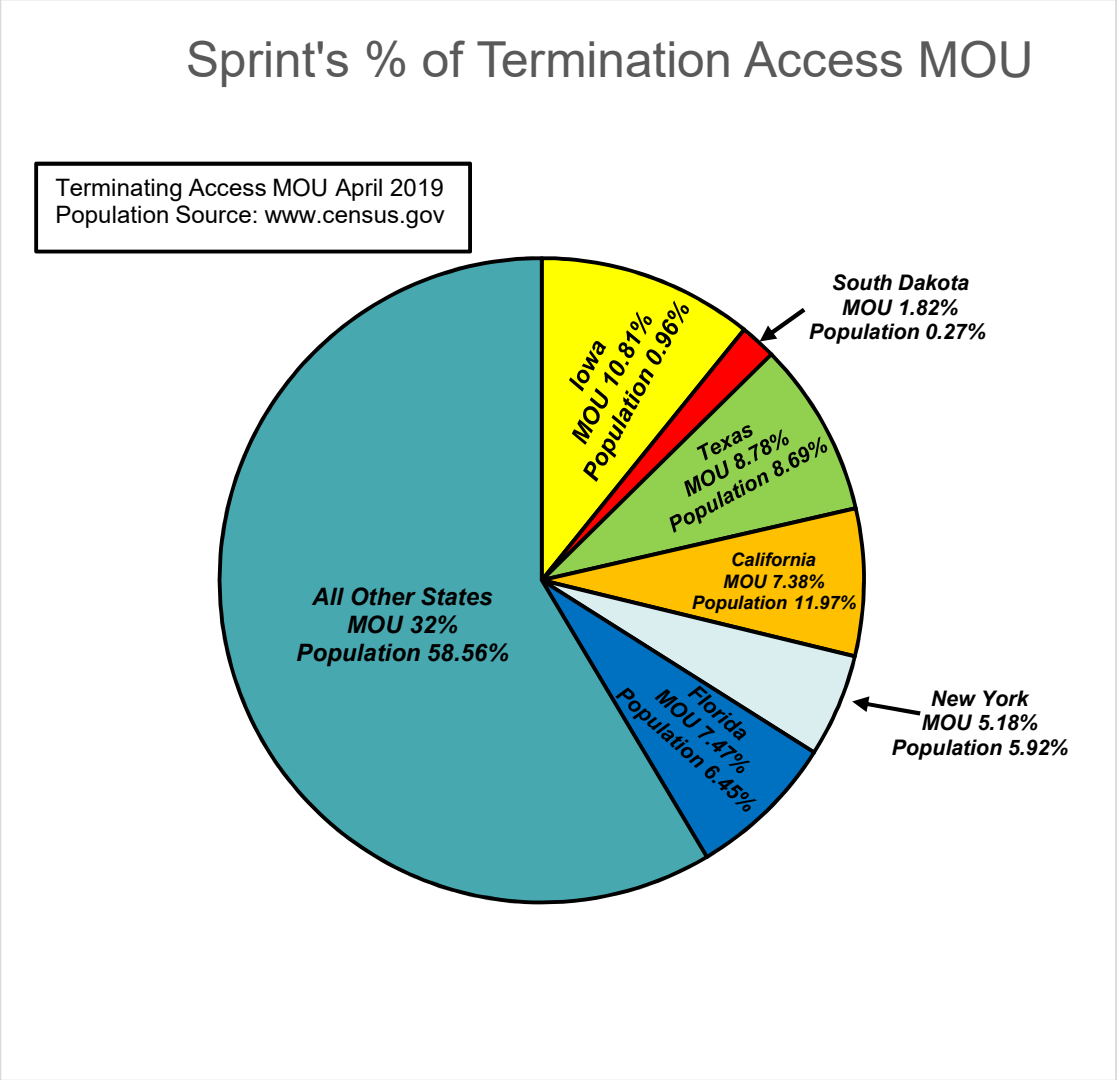
[9] *See In the Matter of AT&T Services Inc. v. Great Lakes Comnet, Inc.*, EB Docket No. 14-222 (March 17, 2015).

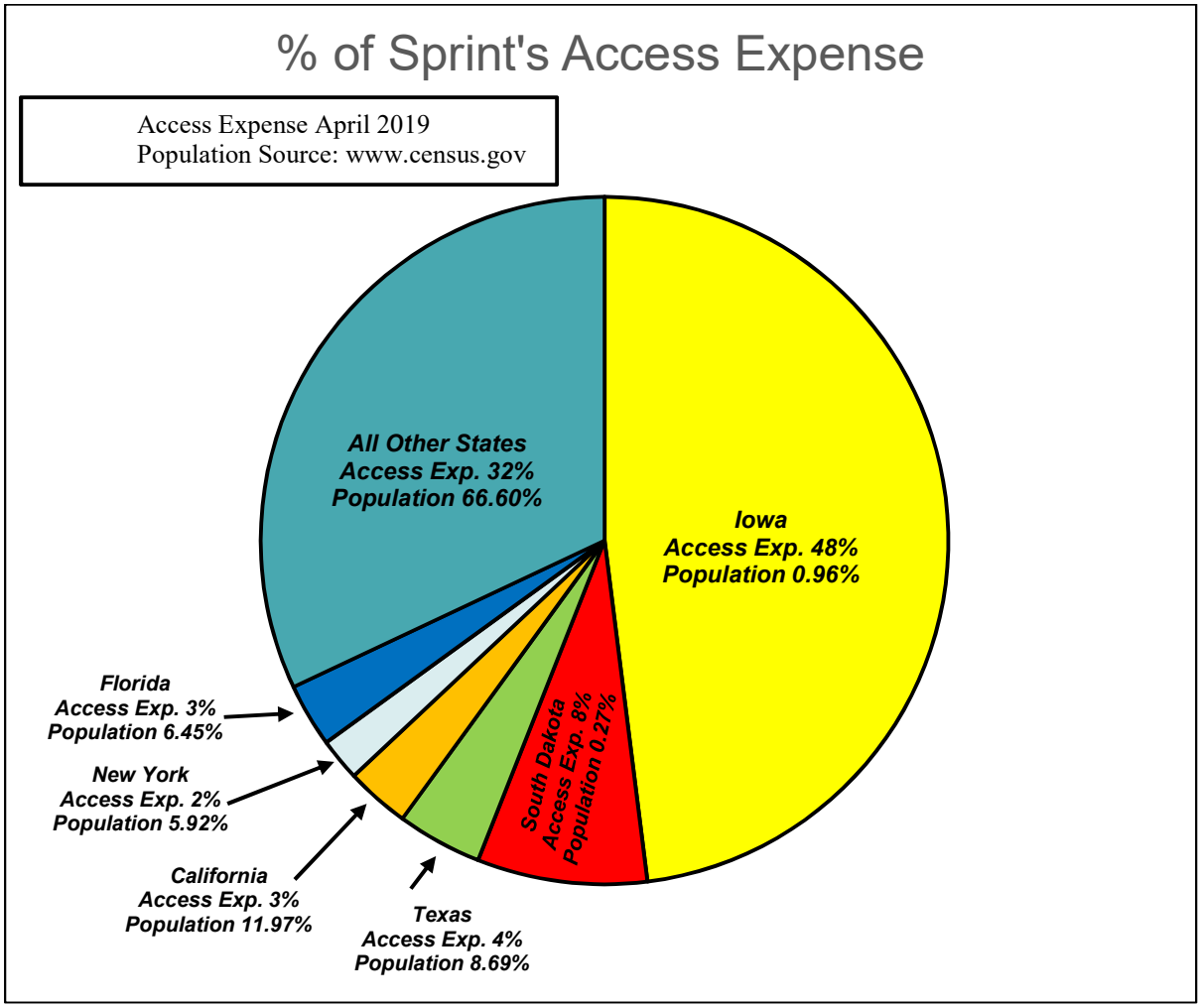
[10] "[O]ne study estimated that the incremental cost of delivering an average customer's total volume of voice service could be as low as $0.000256 per month; on a per minute basis, this incremental cost would translate to a cost of $0.0000001 per minute." *ICC/USF Order* para. 506.

III. Sprint's Experience with Access Stimulation

A. The Majority of Sprint's Voice Traffic Payments are Caused by Access Stimulation

Iowa contains less than 1 percent of the population of the United States. Yet, as of April, 2019, Iowa is the destination for 11 percent of Sprint's domestic long-distance minutes-of-use. And those calls represent *48 percent* of Sprint's total switched access payments across the United States. Similarly, South Dakota constitutes 8 percent of Sprint's terminating switched access traffic payments despite only being 0.27 percent of the population. As a further illustration of the distortions created by access stimulation, less than 0.2 percent of Sprint subscribers placed calls to access stimulation telephone numbers. In other words, a very, very small fraction of Sprint's subscribers account for 56 percent of Sprint's switched access traffic payments.





States with small populations represent such a disproportionate share of voice traffic payments because tariff rates imposed to terminate traffic in Iowa and South Dakota are several multiples higher than in the other 48 states. Because the rates are higher, access stimulators have located there for the purpose of exploiting the delay in implementation of bill-and-keep. It is not an accident that access stimulation exploded in Iowa two decades ago. High terminating access charges under the rate umbrella of the centralized equal access provider continues to create an arbitrage opportunity. No rational conference calling business would intentionally locate its facilities where interconnection is difficult and expensive rather than an established traffic exchange point unless there were financial incentives to do so—here, the subsidies provided by other entities through access charges.

The high rates in Iowa are premised on typical volumes to high-cost rural exchanges. The rates imposed by tariff by the centralized equal access provider have created a price umbrella that other entities slightly undercut but still are far above the rates charged in other states. One LEC in Iowa with a access stimulation tariff has offered to Sprint to bypass the centralized equal access provider (as well as unregulated providers affiliated with access stimulators) by accepting Sprint's traffic in IP format in a city a thousand miles outside Iowa. Given that the regulated

tandem rate is premised on costly TDM traffic exchange and delivery to rural exchanges, the fact that a LEC will accept Sprint's traffic in IP format in a city a thousand miles outside Iowa but basing its rate on the expensive alternative shows the true financial motivations underlying the location of these facilities away from cheap and simple traffic exchange points.

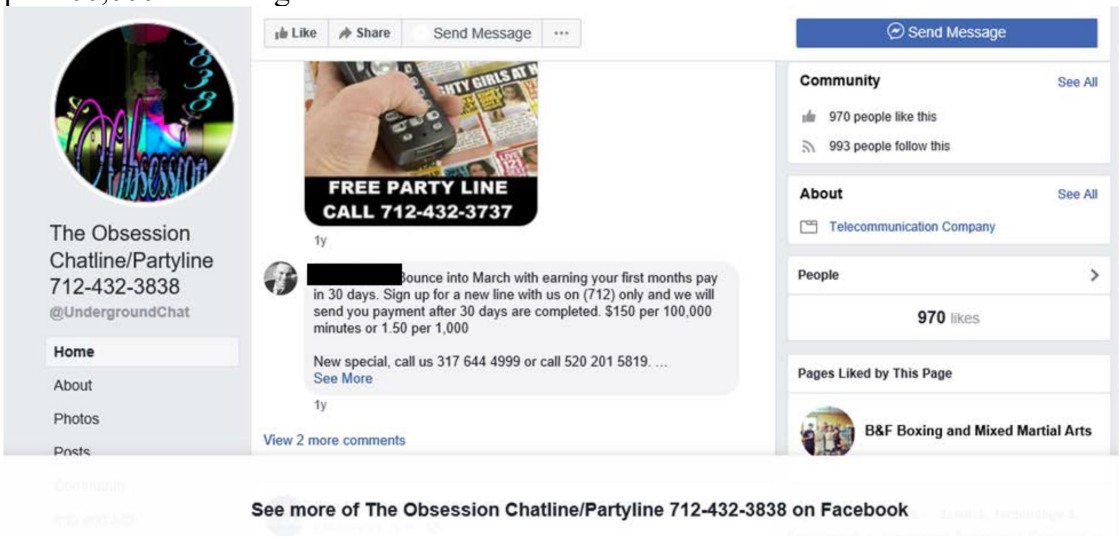
B. Sprint is Increasingly Encountering Fraudulent Calling Schemes

Parties are openly promoting opportunities to get paid for generating minutes by dialing telephone numbers owned by access stimulator LECs. For example, as seen in this Facebook page, calls to access stimulator numbers are offered $1 per 1,000 minutes:

Below are examples of network impacting events caused by unanticipated extremely high-volumes of traffic:

1) In January of this year, Sprint identified 33 phones at a single cell site in Tampa, Florida, that were each placing more than 1,000 minutes per day. (Note that there are only 1,440 minutes in a day.) These calls were going to known access arbitrage

carriers. Sprint shut down the devices as violating its terms of service, but in the meantime the calls resulted in a voice block rate of 50 percent and a drop rate of 12.5 percent at that cell site. Because of these traffic arbitrage calls, other customers were unable to make regular calls and may not have been able to reach 911. Many of the calls went to numbers identified in this advertisement recruiting callers offering $150 per 100,000 minutes generated:



2) Access arbitrage calls in Puerto Rico recently overloaded several trunk groups and resulted in the inability for Sprint's customers to place calls to the mainland United States or to other Sprint customers in Puerto Rico. Claro is a carrier in Puerto Rico that offers wireline and wireless services. In late 2018, a small number of Claro customers placed enormous numbers of calls to a Boost Mobile (Sprint's prepaid brand) customer that forwarded calls to a number owned by Pacoptic in Massachusetts. Pacoptic subtends a tandem provided by Inteletel, LLC that is an affiliate of Great Lakes Telephone,[11] an admitted access stimulator. The volume was so great that they not only overloaded the connection between Claro and Sprint but also the backup connection that routed through Puerto Rico Telephone. As a result, Claro customers calling Sprint customers in Puerto Rico had their calls fail, Puerto Rico Telephone customers calling Sprint customers in Puerto Rico had their calls fail,

[11] http://www.glccom.com/generations/index.html (noting that IntelTel is in the Great Lakes "family of businesses").

and Sprint customers calling the mainland United States had their calls fail. Boost suspended the accounts that were forwarding the calls because such calls violate Boost's terms of service. Within hours, a large number of calls were sent to a different Boost number that was forwarded to a different Pacoptic telephone number, this time in Colorado.

3) Another example of a fraudulent calling scheme that generated extremely high volumes of traffic occurred on March 9 and 10, 2019. More than 1.4 million minutes were sent from a single number (951-373-54XX) to a Boost Mobile phone (951-448-51XX) that was subsequently forwarded to Pacoptic terminating telephone numbers, a carrier that has filed a traffic-pumping tariff. The tandem provider InteleTel that Pacoptic subtends is an affiliate of Great Lakes Telephone. The traffic increased to six times the normal call volume in a single day. Note that there are only 1,440 minutes in a 24 hour day. This single phone forwarded almost 1,000 times a full day's call volume. While Sprint's fraud prevention team suspended the account the next day, the calls were already placed and the charges incurred. Sprint has placed test calls to these numbers, which resulted in the call being "answered" but without any form of communication. In other words the calls terminated to dead air. As far as Sprint can determine, they are not conference services or chat lines or radio by telephone. They are a straight-up fraudulent schemes that leaves access rate-payers and their customers footing the bill.

It would be expensive and ineffective for Sprint, or any other carrier, to increase network capacity to handle such enormous call volumes. Networks are engineered to accommodate typical calling volumes not the potentially ever-changing volumes resulting from access stimulation schemes. As these examples demonstrate, the perpetrators of these calling schemes can quickly change devices, locations, and traffic routing. Moreover, increasing interconnection trunks between carriers is an additional expense for all carriers in the call path that is in addition to the MOU charges applied to the terminating end of the call.

The carriers subject to these schemes are simply unable to meet this wildly fluctuating traffic demand. Wireless carriers have long lead times and limited spectrum to increase capacity. So when concentrated calling assaults take place as described above, it would be months for a carrier to install new cell sites to meet the increased demand. Even so, the demand is fleeting as the phones can be moved in an instant to a new location. A carrier simply cannot economically spend tens of thousands to hundreds of thousands of dollars on a new cell site to satisfy the demand of several dozen phones simultaneously placing calls 24/7 to a single number as a part of an access arbitrage scheme.

Wireless calls eventually are transmitted by wire, and the same problem remains. The traffic patterns for these fraudulent calls are impossible to predict and can be changed rapidly. Installing additional trunk capacity takes weeks, and in Puerto Rico some tandem switches have their capacity exhausted and cannot handle additional trunk groups. And, again, the calls can be rerouted in a flash, leaving the costly network upgrades stranded. Carriers want to make capital investments to meet real demand from real customers, not to remove bottlenecks so that customers can make fake calls 24/7 in exchange for a kickback.

Sprint has also identified instances in which a Boost Mobile device has been programmed to forward all calls to an access arbitrage terminating telephone number. For example, in Houston on a single day 1,192 calls were forwarded from a Sprint Boost device to a phone number owned by Great Lakes in Iowa. The calls were for a total of 277,677 total minutes from a single device in a single day. This single event cost Sprint more than $1,000 for calls that neither originated nor terminated on Sprint's network.

The cost and impact of access arbitrage reaches well above and beyond the grossly inflated MOU use charges imposed on Sprint for traffic bound for telephone numbers engaging in the various schemes. The first and most obvious wave of additional cost and resources spent originates from the need to identify the culprits and formulate a plan to combat network attacks. Sprint currently has several network employees devoting 100 percent of their time to access arbitrage issues, and an additional handful of employees allotting at least a portion of their daily activities to this issue. Sprint conservatively estimates that at all times a minimum of not less than five full-time equivalent employees are concentrating their efforts toward the mitigation of access pumping harm, and that figure regularly reaches seven to eight and sometimes as many as ten.

Once the access pumping schemes are identified and fully grasped, Sprint's fraud department must engage in the process. The fraud group must investigate each account suspected of access arbitrage fraud, and study the customer behavior associated with each account. Next the fraud department and Sprint's attorneys must pair the terms and conditions that accompany the customer's service plan with their suspicious activity to determine if there has indeed been a breach committed. If it is determined that a terms and conditions breach has occurred, the fraud department must then contact the customer and notify them of the alleged violations and Sprint's proposed plan of action against their account. Subsequent to customer notification, the fraud department must then take the necessary steps to disable the customer's device and suspend the account. The fraud group must then document all of the details associated with the corrective action to ensure an adequate record of the circumstances is maintained. Unfortunately, the ripple effect associated with the access arbitrage schemes doesn't end here and is felt elsewhere throughout the company as Sprint must constantly find ways to continue offering competitive and attractive services in spite of the damage triggered by access arbitrage. For instance, Sprint's product development and marketing groups must examine potential modifications to calling features (such as call forwarding and three-way calling) aimed at curtailing the harm caused by access arbitrage, while at the same time mitigating the impact of such remedies have on legitimate non-access arbitrage customer wishing to utilize such features.

IV. Proposed Action

Sprint has consistently advocated for the elimination of the access charge system and the establishment of IP interconnection and traffic exchange of voice traffic at a small number of locations, i.e., the same locations where carriers exchange data traffic. It's clear that access arbitrage schemes will proliferate as long as the access charge system is allowed to continue. The Commission should eliminate the remaining switched access rate elements immediately. Section 251(g) of the Act gives the Commission explicit authority and direction to do so. If the Commission is not prepared to take final action, Sprint proposes the following immediate action:

- Sprint supports the immediate adoption of "prong 1" of the Commission's proposal, so long as the access stimulators do not shift costs back to IXCs or wireless carriers through alternative call routing. Specifically, access stimulators should be responsible for ALL access elements and functions for calls delivered to them – all ports, tandem switching, and transport.
- Adopt a mandatory one-year phase out of remaining access rate elements for price-cap ILECs and CLECs. This provides ample time for these LECs to make reciprocal, competitively neutral IP-interconnect and traffic exchange arrangements for voice calls at the same locations where data traffic is exchanged.
- Adopt a mandatory two-year phase out of remaining access rate elements for all other ILECs. Rural ILECs may petition the FCC for universal service support to recover the incremental costs of implementing IP interconnection.

Sincerely,

/s/ Keith C. Buell

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